A case study of teaching English and multimodality with ICTs: Constraints and possibilities

Abstract: *Current Australian policies and curricular frameworks demand that teachers and students use technology creatively and meaningfully in classrooms to develop students into 21C technological citizens. English teachers and students also have to learn new metalanguage around visual grammar since multimodal tasks often combine creative with critical General Capabilities (GC) with that of the of ICTs and literacy in the Australian Curriculum: English* (*AC:E*). *Both teachers and learners come to these tasks with varying degrees of techno-literacy, skills and access to technologies. This paper reports on case-study research following a technology based collaborative professional development (PD) program between a university Lecturer facilitator and English Teachers in a secondary Catholic school. The study found that the possibilities for creative and critical engagement are rich, but there are real grounded constraints such as lack of time, impeding teachers' ability to master and teach new technologies in classrooms. Furthermore, pedagogical approaches are affected by technical skill levels and school infrastructure concerns which can militate against effective use of ICTs in school settings. The research project was funded by the Brisbane Catholic Education Office and focused on how teachers can be supported in these endeavours in educational contexts as they prepare students of English to be creative global citizens who use technology creatively.*

Keywords: ICTs in English; multimodality; Computers in Classrooms; ICTS and pedagogy; Australian Curriculum: English; Creative and critical engagement with technology

Current Australian policies and curricular frameworks demand that teachers and students use digital technology creatively and meaningfully in classrooms. This demand is part of policy imperatives to develop teachers and students into 21C technological citizens. English teachers and students have to learn new metalanguage around visual grammar, since multimodal creative tasks often combine with critical thinking which fulfils the brief of that General Capability (GC) in the *AC: E*. If they deploy ICTs they are also fulfilling that GC, as well as the Literacy one. In addition to learning a new metalanguage around the creation of multimodal tasks, teachers and students must also master the software used to create digital texts. Both teachers and learners come to these tasks with varying degrees of techno-literacy, theoretical knowledge and practical technological skills, as well as varied access to technologies. Sometimes this places a heavy burden on the teacher so that valuable time is spent in mastering software programmes only to find that inadequately-supported infrastructure and hardware in schools militate against the effective classroom use of Information and Communications Technologies (ICTs). English teachers are sometimes trying to teach digital and multimodal tasks with technologies against the constraints of ordinary classroom contexts, which are inadequately set up for effective computer use. Within these constraints, teachers look for workarounds to balance technology use with other pedagogical methods, on the ground. When teachers are given time and training to confidently teach with technology in their current work programs, however, the results can be rewarding.

This paper reports on a design-based research case-study following a collaborative ICT PD program between a university Lecturer facilitator and English Teachers in a coeducational, secondary Catholic school. The PD program was based on the collaborative 'On model' (Jetnikoff & Smeed, 2012). The approach espouses that effective PD needs to be "ongoing, on site, on the mark and on time". In this case these conditions were fulfilled, in that the PD project was a collaborative process between the University PD facilitator/researcher, the sessions were all conducted at the school, and aligned with the content and timing of the school's work program and timetable. The PD focused on the use of technology for the Australian Curriculum and sought to inform the research question, 'how does technology PD impact on teaching and learning outcomes in English classrooms?' The research component evaluated the efficacy and sustainability of the PD content, skills and knowledge of the English teacher's use of ICT.

The Literature

A review of the current field shows a growing body of literature around meaningful use of ICTs, pedagogical change and PD. Research shows that teacher qualities such as knowledge, self-efficacy, pedagogical beliefs, and subject and school culture are important factors in effecting change (Ertmer & Ottenbreit-Leftwich, 2010; Someck, 2008). Researchers and policy makers alike argue, 'it is no longer appropriate to suggest that teachers' low level uses of technology are adequate to meet the needs of the 21-centrury learner' (Ertmer *et al*, 2010). Self-efficacy in terms of teacher's competence with technology comes about not only by personal experience but also by having time to experiment with the technology, especially through the professional development programs in the context of the teacher's ongoing work (Snoeyink & Ertmer, 2002). Research in the United Kingdom found that 'effective PD for teachers requires changes at several levels of educational systems (political, institutional and individual), and that ICTs should be seen as an opportunity for introducing new goals, structures and roles that support these changes' (Twining, Raffaghelli, Albion, & Knezek, 2013).

The contexts in which teachers work do not always support teachers' individual efforts in innovative uses of technology (Somekh, 2008), so another important factor in supporting teachers' use of ICTs is that school systems must provide adequate infrastructure and funding, as well as in-service professional development. Teacher reflection on the process may also facilitate effective integration of ICTs with in-service PD (Walsh, Bradshaw, & Twining, 2012). The focus groups in the research design of this study provided group reflection both on the ICT PD program of the teachers in addition to their implementation of ICT use in the classroom. In this way, troubleshooting and problem-solving were shared within the school's community of practice. This is consistent with the principle of an integrated, collaborative 'on model' of PD, used in this study's approach. The On Model is designed to be sustainable beyond the university-school partnership by working with the staff to develop some new knowledge and skills but also to find the expertise in their own community during the process. If a school can create a community of practice around ICTs, such as establishing a culture of technology integration, modelling technology use, and creating teacher leaders, adoption of new technologies are more likely to be effective (Kopcha, 2010).

In Australia at the turn of the century, the Digital Literacies project espoused the imperative to put teachers first, in terms of adequate PD alongside or prior to technology development in schools (Lankshear, Snyder, & Green, 2000). More recently in the United Kingdom, pedagogical literature on ICT tells us that PD is also more effective if it works from the "ground up", so that teachers are not just subjected to externally designed courses (Walsh et al., 2012). This was a guiding factor in this Australian ICT project. As a PD facilitator, I planned and worked closely with the administrative team responsible for the English program in the school. The content and timing of the PD aligned with the school's English work program so that teachers had a say in what they learnt and how they took it forward into their classrooms. In our study we created an ongoing, collaborative partnership between the academic PD facilitator and the group of participating English staff to carrying the skills and knowledge learnt in the PD workshops forward, and to finally reflect on the whole process.

Policy background

In terms of policy background to the study the ostensible 'education revolution' in Australia, required teachers and learners to deploy computers and technology in their pedagogical practice, as ICT has become one of the cross-curricular GCs in the Australian Curriculum. Further to these factors, the National Professional Standards for Teachers (Australian Institute for Teaching and School Leadership (AITSL), 2011) require that teachers undertake PD to be registered, and also to be *au fait* with technology in teaching, planning, assessing and reporting. In spite of these policy imperatives, some teachers may still fear taking on new technology, and are wary of using ICTs in classrooms. It has been argued, indeed, that technology integration may go so far as to challenge teachers' established identities or threaten their authority in the classroom (Curwood, 2014). This is partly because technology changes so quickly that the teachers sometimes feel they lack relevant knowledge to use new technologies in the classroom (Lawless & Pellegrino, 2007). This means that confidently developing digital literacy curricula is also a challenge for teachers (Sefton-Green, Nixon, & Erstad,

2009). This, combined with lack of time to keep pace with the ever-changing software, makes it sometimes seem too difficult to incorporate ICTs into their pedagogy. On the other hand, research in the United Kingdom also suggests that 'technology as a platform for more connected social learning experiences is a far cry from the notion of technology supplanting teaching' (Fullan & Langworthy, 2014). It can be argued that digital content and learning resources now have the potential to fulfil much of the 'content delivery' requirements of teaching; however this needs to be supported by effective infrastructure, such as an effective whole-school Learning Management System (LMS) or classroom spaces that effectively support innovative teaching and learning.

What we did in the case-study school: the PD project

Following the protocols developed in the On Model of collaborative PD (Jetnikoff & Smeed, 2012), meetings were held with the middle-management staff, the Dean of Curriculum, and the English Head of Department for the technology PD element of the project. An initial needs analysis survey determined the school's technology infrastructure, access to hardware and software, and the desired teaching and learning outcomes of the English teachers and their students. Initial planning meetings established the times and content, as well as the eight teachers who would participate in the PD workshop. Teacher participation in the subsequent reflective research focus-groups after implementation of the PD was voluntary, and was limited to those who actually taught the unit we were actively preparing for in the PD session. The planning meetings were "on the mark," in that they were aligned with the English work program needs of the school. The project was also delivered, "on time," in that the workshops and research evaluation coincided with the school's Year 8 English work program which deploys the Australian Curriculum.

The entire PD project and its evaluation ran over the course of a year (2014). We agreed to two PD 'ongoing' workshops at the school, and two research focus groups; which took place after the implementation and assessment of the tasks had been completed. Both PD sessions related to developing teachers' knowledge and skills to teach towards two Year 8 English units with assessment tasks deploying ICTs. The first PD session was developed using technology to make a persuasive digital advertisement for a print publication context, and a persuasive justification of the design choices made in the creation of the ad. The second assessment task was on digital storytelling in the context of an original ballad in a poetry anthology. Two focus groups were conducted with the staff who participated in the workshops after they had implemented the new skills and knowledge from the PD into their teaching; in order to evaluate the program's effectiveness for the teachers and learners, as well as to reflect on the school's approach to the use of technology in junior secondary English.

It was established from initial discussions that the metalanguage of visual grammar would be new and useful knowledge for the staff. In the first workshop, the university lecturer also worked with a research assistant who had a background in graphic design and advertising, and together we demonstrated advanced skills of image manipulation and layering, composition and layout using the two software programs. We also taught visual grammar concepts, such as salience, position, vectors, use of colour and composition, and backgrounds. In addition, we covered sourcing copyright-free images from Creative Commons © websites. A small number of the English staff was familiar with the some of the skills, knowledge and metalanguage we taught and modelled, but most were not. Each participating teacher made their own advertisement, so that they had a digital model to show their students.

As well as the software applications and affordances, the eight PD workshop participants were newly-introduced to the principles of visual grammar, to give them a common technical metalanguage with which to talk about aspects of digital, visual design with their students. Although this was well understood and received by staff, it did not always translate into their classroom practice exactly as we taught it in the workshop. Each teacher made adaptations when teaching the metalanguage for the needs and ability levels of their students. In most cases, the teachers reflected that they used the visual grammar 'in a simpler form'; in other words, they did not teach it through the visual metalanguage which had been highlighted in the first PD session. Although eight staff participated in the PD session, only five of them actually taught the Year 8 advertisement task and attended the follow-up

focus group some months later. All five teachers had, however, applied the technology skills learnt in the PD sessions to their teaching.

The second PD workshop covered the digital storytelling software Photo Story 3 (PS3) for windows, which is available as a free download. The assessment task was for Year 8 students to write an original ballad and convert it into a multimodal digital 'story', with narration, visual photographs and music audio track. This was to form part of a poetry anthology. In this workshop, again all participating staff made a 'digital story' from an original poem in the narrative form of a bush ballad. Having covered visual grammar in the last workshop, we concentrated on basic mastery of the software and each teacher made a digital photo story with two audio soundtracks with narrative and music and deploying still images with digital transitions.

Findings and reflections on teaching the digital advertisement

The focus group discussions with the five teachers who taught the "persuasive language in ads" unit revealed the following positive and negative findings around using technology in English, following the PD workshop. There was a consensus about a more "even" quality of student digital compositions as a result of more informed and concerted teaching of software and visual grammar. Interestingly, however, deploying technically limiting software programs sometimes meant less sophisticated or imaginative designs than hand-drawn or verbal conceptual design briefs. This was partially a result of the limitations of: diverse computers; using only free software; time; and also skill variance of both staff and students. Neither the participating English teachers nor their students were all "digital natives" (Prensky, 2007). The level of variance between the teachers and students' abilities was marked in individual cases and across the school. Furthermore, the collegial, reflective discussions following the collaborative PD led to shared considerations around finding a balance between classroom ICT activities and more traditional pedagogical approaches. Some solutions involved students' peer to peer collaboration and teacher collegiality for future pedagogical approaches to ICTs. The focus group reflections also revealed the need to address technological infrastructure concerns in the school such as storage and retrieval concerns around submission and assessment of digital products.

Let me explain each of these findings in more detail. Following the PD workshop of visual grammar, constructing an advertisement and using a slide show for the justification, there was general agreement that there was a more 'even' quality level of student digital products across the student cohort as a result of more informed and concerted teaching of software and visual grammar.

Teacher 5 Last year, when we did the same task, we didn't have the whole-grade approach to using technology and using the ideas generated by the previous PD. So it was a lot cleaner this year in terms of what the students produced, because last year there was a real diversity in hand drawn as opposed to ones with a common use of the same programs. And I think it made it a lot more important to the students. They took it a lot more seriously.

The teachers discussed the positive aspects of ICTs to potentially produce professional-looking, multimodal advertisements, but also the constraints posed by inexpert use of the software. Deploying limited skills to simple software programs sometimes meant compromise in design terms in final draft. The students' paper drafts concepts were often more complex and imaginative than their technology skills allowed them to produce digitally. They were allowed one draft with feedback, which was done initially in the classroom with paper with pencils. One teacher (T2) said, "Some of them struggled to make it look as good as their draft, because I think some of them couldn't quite get it looking quite how they wanted".

Teacher 3 Like we were saying …their imagination…in their drafts they were doing their own images, creating them in their mind and putting them on paper. Whereas when you go there, you're getting the image. You have an idea what you want, but it's being created for you...they might be modifying it, playing with it.

Teacher 4 suggested the drafting process also depended on both the technological and artistic competence the students brought with them to the task. His more competent students found images online first and based their drawings on them:

> Teacher 4 I just remembered that were a few students who, to do their drawn draft, first they did it on the computer and then they drew it from the computer. So …maybe because they knew what they end product was, and they don't like drawing, "I can't draw, it doesn't look right"…That might play in there as well. The drawing thing, the conceptualisation, the freedom of pencil, whatever compared to technology does have limits.

The assumption that all students are digital natives is erroneous. Even learning how to locate appropriate images was difficult for some students. Some had to be taught how to search for basic keywords. Teacher 2 noted: "They struggled with finding images the way you taught us to, using those specific websites. They don't really know what kinds of keywords to put in the search bar".

This shows that even with available technology and access to online resources, we may still need to break everything down to basics with students. Each time I conduct research into digital technology use in schools I am more convinced that Prensky's (2007) term "digital native" is a myth. Research confirms that young people are not all using technology competently, constructively and creatively in educational settings any more than older users (Jetnikoff, 2011; O'Mara, 2006), even though they may be adept users of technology outside school (Sefton-Green *et al*, 2009). The almost ubiquitous use of social media is not tantamount to students being experts in discerningly interpreting narrative, semiotics or culture, or being critically aware of copyright and image manipulation. Furthermore, most social media platforms, available to students through phones are banned by school in class time.

We assume that students can manage basic procedures such as organising files and storing digital 'assets'; and yet this varies as much as the way individual students are more or less organised with paper files, folders and other equipment. In addition to the basic technology skills, discussion also focussed on the time teachers needed to master required software first before teaching it to their students for any given task. Even readily available programs in the Office suite® were being used only superficially by the year 8 students prior to this project and task. As noted:

> Teacher 3 I think with my class …around technology, I had to do really step-by-step with some of my students, step them through some of the capabilities of Microsoft Word and PowerPoint because they weren't *au fait* with that at all. They're only used to just typing in it.

Similarly, while some of the teachers were already quite adept at using technology creatively beyond planning and administrative and transactional uses, others were closer to novices. There was a correlation between the teacher's skill level and the time spent mastering the software and the uptake of the teaching of the technical visual grammar terms as part of the advertisement design and justification task. Those concentrating on mastering the software themselves spent less time teaching the visual grammar of the task. One of the English staff, for instance, was an erstwhile marketer, and other teachers had a visual art background and expert knowledge of composition and visual principles. The youngest English staff member, who had just joined the staff as a beginning teacher, identified herself as very *au fait* with digital technology. The laptops the staff brought with them also varied in age and technical sophistication. Some machines lacked built-in microphones or sound cards, so they were unable to complete parts of the PD task that required audio recording. Thus the English teachers' technology PD workshop simulated the conditions of their classrooms since it emerged later that their students also had varied technological skills and used different laptops.

Only two teachers of the five focus-group participants had taken the conceptual knowledge of new metalanguage of visual grammar and used it with their students in the classroom. In both cases they were already fairly technically competent. The beginning teacher, who self-identified as *au fait* with the technology, commented she did not know the metalanguage of visual grammar prior to the PD session. As such, she was 'not struggling with the tech aspects of teaching the task', and she could concentrate on teaching the visual grammar language elements:

Teacher 1 I knew most of the computer stuff, other than that I think it helps me to narrow down just what sort of things we should package and teach as visual grammar…I think that helped to improve [the student work]. But technology-wise, I knew most of it… I did a little bit on the visual grammar that you did, just in a more simple form, just in terms of getting some of the terminology. Probably only a few actually understood and used it in terms of discussing the foreground of their ad and that kind of terminology, others were more plainly spoken about what was in their ad, whereas others really did deconstruct it.

Teacher 4 who actively taught the visual grammar metalanguage had a high-achieving "extension" class. He had designed his own model advertisement, which he based on the ones we modelled in the PD session. This teacher taught his class how to access non-copyrighted images and the application of visual grammar and use of the software, which were modelled in the PD session. When discussing the metalanguage of visual grammar, he said:

Teacher 4 I think they really grabbed on to that, and so there seemed to be an understanding and some put it in well, and some used the terms almost in the right way, others attempted. I think they felt "this is something I don't know", and they felt good learning something, so we can do things better. So I think for those kids, it was actually helpful. Whereas if we'd maybe just gone for simpler language and terms, maybe they would have just thought "we know that anyway".

Teacher 4's students were keen to apply the new knowledge, and he partly attributed that to his own enthusiasm:

Teacher 4 I think… I'm not the right age for Gen Y but my technical skills are sort of "up there"…I think I was more excited about the copyright-free images which I've always struggled to find. And so those things are what a lot of students actually wrote about, and some of the simpler things they didn't… probably because I just went through it and didn't get as excited about it. The things I learnt, I probably passed on the enthusiasm … I tried to make them do the non-copyright images.

Other teachers said their students "did not want to use the visual grammar terms". It is not clear from the focus-group data if this was a result of teachers presupposing their Year 8 students were not mature or adept enough in taking up the new terminology, or if the teachers or students really did not want to use the metalanguage because they were already struggling with the technology component of the task.

Teacher 3, who had a background in marketing, commented on the need for her students to 'make images their own' and she had applied the new image manipulation skills from the PD sessions:

Teacher 3 Technology wise, I was very familiar with PowerPoint, but similar to Teacher One, I was coming from the angle of how can I take this into my classroom and make it understandable for the students? …I went through just showing them as a class how to change the pictures like you showed us. And they didn't realise that you could do it, that once you took a picture and put it into PowerPoint that you could make all the changes. So I said that it wasn't ok for them to just cut and paste, they had to make it their own...have a bit of ownership over it.

Teacher 2 agreed that the new skills gave her useful IT classroom strategies especially with image manipulation, which could be applied beyond this task:

Teacher 2 The manipulation of the images, and the cropping… were good…because I've done it a different way before. Whereas when you double-clicked on the image and the tool bar came up… there were lots of little tricks that I didn't know. So I found that really useful.

The skills and knowledge developed in the PD session did not always extend into the classroom practise exactly as we delivered it in the PD session. This adaptation shows that these competent teachers were responsive to the needs and ability levels of their students, which varied according to

the ICT skills they brought from home and from other subjects. Teacher 3 commented on her anticipation of using students' ability differences for collaborative learning in future:

Teacher 3 Probably in picking up on the diversity of skills, there were some students who could do things that I was thinking "Oh wow." But then they didn't know how to do something else. So maybe getting some sort of collaboration of students, who do have the skills, with those who don't.

When asked what specific aspects of the PD were useful to them and what new things they had learnt, they were very positive and more confident about their new knowledge and technological skills than they had been prior to the PD workshop. All teachers agreed with Teacher 4's point about passing on enthusiasm and they were excited to be able to translate that into new knowledge for their students. When I asked if their understanding or pedagogical practice deploying technology had changed, in any way, as a result of what we did in PD, one teacher summed this up by saying, "I guess I am expecting more of the technology now because I know more can be done".

In the focus group following the advertisement task, staff mentioned that they had informally discussed with each other the new technology skills and knowledge they had learnt. Teacher 3 said to general agreement from the rest of the group, "Yes, that [the visual grammar] was good. And it was also good just to have discussions with other staff members about how we can use it elsewhere".

One-to-one classroom computers for students: what does this mean for pedagogy?

An important issue emerging from the focus-group discussion concerned pedagogical practice and the strengths and weaknesses of having one-to-one classroom computers for students. Although the students' assessment outcomes looked more professional and "even," and the learning experiences were valuable, this task had also exposed problems with using ICTs for teachers. Effective computer use in classrooms was mitigated by the varied quality of the laptops they were using; their short battery life and absence of audio components in teachers' and students' laptops. In this school, PC use has to be balanced with other social and classroom activities in terms of teaching and learning. Teacher 3 said "*Well for that [ad task] we were using it regularly, but if I'm doing other units it's different.*" This topic sparked a dialogue around the problems of the one-to-one computers in the classroom:

Teacher2 I wouldn't use it for an entire lesson. I might use it for a little bit of a lesson or not at all, depends on what we're doing. With reading circles, I've been doing 10 to 15 minutes of those a lesson, and then go on to do other teaching of other things…You don't want it to be that they're just using it as a typewriter, they need to also be writing, editing their own work, hand written. They're often writing in their books.

Teacher 1 I know I am constrained by where your lesson falls in the day. I'm very conscious of not relying on computers in lesson three or four. The batteries … run down so quickly. If you go in to lesson four wanting heavy computer usage you're asking for disappointment. You're better off traditionally teaching. Unfortunately, that's a factor in your planning.

Teacher 5 So I think a lot of it is we were reliant on technology. And therefore the cracks in the technology show. But the desire of the school these days is to have technology, and therefore I think it will be a good way forward… Because I think if kids can't type something then they can describe it. Whereas if kids can't do a digital photo story there's not much they can be doing. Because if that computer is not working, the best you can do is make a list of the pictures that you want to use.

This shows a need for more innovative classroom contexts to support a real change in pedagogy to effectively use ICTs in the classroom. Infrastructure such as adequate power outlet hubs for charging computers and desk arrangements to allow safe access to these is needed in schools and many schools were not equipped with this when the one-to-one rollout began. Storage, and submission and retrieval of teaching and learning resources and assessment were also discussed in the reflection on the creation of the multimodal tasks. These reflected the absence of an effective whole-school LMS – or cloud

technology – in this particular school. The second focus group revealed that the school was moving to cloud technology in the future, which should change some of this approach to ICT pedagogy.

Time also impinged on the pedagogical implementation of the new technical skills and knowledge in the classroom. There is a common myth that computers and online technologies make learning more efficient. This may be the case where the environment is technologically designed to deliberately support new kinds of teaching and learning. When laptops are just brought into regular classrooms, however, teaching and learning can take more time:

Teacher 4 One other thing I think is …just the time it takes to do technology. And all you have to do is have a student away or whatever and suddenly… So I think in any sort of unit like this you just have to expect that if they have to do anything on computer it's going to take an extra two or three lessons, unless they have that time at home… A lot of mine did a lot of time at home. The ones who aren't so motivated …because they aren't so skilled, didn't have time to get things done. Or just to see ah, you can improve this… and to go around to each student.

The classroom strategy of going around to check what each student has on their screens, and whether or not they are on task, which some of the time they are not, is inadequate but deemed necessary in this traditional classroom environment. This school has a monitoring system, called "AB tutor", which was unable to be used simultaneously with explicit teaching, and could only monitor students who were online and logged on as students. So the teachers were finding this less than adequate for their needs when teaching students ICT design tasks. The alternative 'flipping the classroom' model of teaching and learning, where content is taught through online technology-based activities outside of school, lies at the extreme end of the student centred learning continuum. This approach is touted as time saving, but relies either on expensive 'ready-made' videos and online resources to be accessed by students, or time for the teacher to produce all the resources. These also require access to a readily available online LMS such as a "Moodle" or similar, which in this school was being trialled but not yet available to English teachers. Alternatively, schools need access to existing sites such as YouTube or Teacher Tube, which are blocked in many schools in this state. Most schools have not adopted the 'flipped' model, and still struggle with the ubiquitous use of computers in the classroom. What happens is that known pre-technology pedagogies are deployed, in order to fill the gap left when the computers cannot be reliably used in class time. Another solution to this is to encourage students to work collaboratively with peers, which was a strategy used in the second task more than the first.

Peer feedback improved results.

In the second PD workshop on the digital story, I assumed the visual grammar covered in the advertisement task some months earlier would carry over into the next digital task. So we concentrated on using the free downloadable software Photo Story 3 for windows. Each of the eight participants created a model digital story, based on a bush ballad, "Old Man Platypus" by Banjo Patterson. What emerged from the focus-group discussion was that peer-peer teaching could be a very effective form of formative feedback. In this multimodal task collaborative learning became important for working effectively:

Teacher 3 The early finishers, I had them help other students. So a lot of you know a bit of peer interaction happening, and it was good because they would offer some constructive feedback and some suggestions to each other. And then the students who were helping would often go back and re-look at their own work…Yeah I thought that was, that really showed the initiative and good reflection as well. So…and as a result I did see their initial work and as a result their final digital story was improved.

This application of the visual grammar knowledge to this task did not always carry over from the advertisement task, even though the same principles apply:

Teacher 3 I showed them a photo story and walked them through it that way. But in terms of using the visual literacy… the specific grammar I suppose, it was really more implied. I didn't really refer to it explicitly when I was teaching the kids.

Teacher 2 Just the visual literacy things of what kind of font would suit, what kind of colours would suit. Because mine kind of picked up quite quickly the whole, you know, if it's a country [setting]… let's try and choose some country music. Then even like a font that isn't you know really modern …and we have quite an older font. So they picked that up quite easily without me really getting into it.

One principle that did carry over from the first PD session was the use of copyright-free images:

Teacher 4 The other thing that I tried with my class… is non-copyright images and so that was one of the first questions. "Oh can we steal people's images"…And a few students chose to take photos at home … Then there was the technical problem of "well all my photos are on my phone am I allowed to take my phone out in class? And how do I get it to my computer?"

Such technical problems are constrained by school and state policies around the use of online digital devices like mobile phones and tablets, and this does impinge on their potential use in classrooms. In many cases, school and government policy militates against effective ICT use in the classroom, since streaming sites are filtered and blocked, and mobile phones are banned from classrooms for obvious reasons centred on distractibility. Teachers reported frustration that the students were quick to be "off task' when no one was watching, and sometimes this was due to the additional non-educational software they had on their computers such as games and other "distracting" apps, "which they flick in and out of so quickly" (Teacher 3).

The choosing of appropriate images for their texts became the basis for whole lessons. When they were all practising with 'Waltzing Matilda', "the students were choosing images of sheep", and the search for "convicts" produced inappropriate images of "American galley slaves." Teacher 1 also taught visual art and was making them think critically about their choice of images, colours shapes and historical accuracy: "Like one of them was like, was a free verse about Australian's shoes and he had Jesus sandals with the pictures [laughter]. And it was like that was a huge argument in class."

The teachers also reported on other technical problems that had to be worked around in the classroom, including "downloading the program … and then just working out what the whole idea of the program was" (Teacher 4). Also students completing their files had not saved them correctly as rendered movie (wmv.) files and had submitted on their USB drives as working "project files" instead. This was the first time this unit had been run with digital publication, as the final product and the teachers reflected that this final 'publishing' stage would need to be taught more carefully in future. Others had problems with hardware, with computers crashing or with students moving files from one computer to school to another one at home. This is a concern that would be solved by adequate school supported online cloud storage or an effective LMS, which was not yet operating evenly across the school at the time of study.

The teachers were philosophical about the troubleshooting concerns as 'things to be expected with technology'. For instance, with the submission of incomplete products due to file type:

Teacher 4 I just treated it as a basic technology thing … you know first time you've done it, you … find the glitches. And part of it was my fault. I didn't actually model or demo and I said, "You have to finish it". So…that's something to do better next time.

Although the students had better skills with manipulating the visual content as a result of the previous advertisement task, the digital story task included an audio component. The PS3 program allows users to create music from sample styles available in the program with combinations of tempo, timbre, mood, style and instrument selections and also an audio narration track. The students had to be taught to audio-record their voices and to access or create copyright free music. All the teachers insisted that the students not use downloaded MP3 tunes, but to create appropriate original music tracks within the program. Only one student in the Year 8 cohort used an original instrumental composition of his own.

His teacher said, “He did female transport and he did like a sonnet and so it was a very slow kind of sorrowful tone and it was good”. Creating appropriate music and audio recording became an interesting teaching point. Some students did not even know where the microphones on their laptops were:

Teacher 1 So… teaching them about tempo … We did a peer thing where we would put it up on the screen and go okay well how could we use the mobile phone for that… Because it doesn’t relate to that ballad that piece [laughter] of music. They were really, really good at critiquing each other’s music. No that’s too fast, it’s too “dingy”, you know use all this language. The biggest problem my kids had was the voice recording. And in some of them I just said look just yell into lots of different ports and holes on your laptops [laughter drowns again]….till you work out where it is. They didn’t know where the microphone was.

She also talked about the fact that many of the young students don’t like the sound of their recorded voices and used subtitles in addition to or instead of audio recorded narration. Regarding subtitling, Teacher 1 noted, ‘the placement of that actual text and the size and the colour became very important, so the visual grammar was discussed in that way’.

Reflecting on their pedagogical practices, the teachers discussed how they would do things differently in the future:

Teacher 3 I think I’d probably change my pedagogical approach next time to incorporate teaching kids how to use search engines effectively… It’s an activity or a piece of assessment where they can learn that skill and do it in a way that perhaps is more fun for them… I feel like when I was teaching the kids and saying this is our assessment, I stepped them through the first part of the assessment... And perhaps I didn’t talk about the digital story until after I thought, well okay, they’ve got a handle on the anthology now. So it was almost superficial. Whereas I could have you know said “well this is what we’re going to do with your anthology”. But it’s not just a tag on at the end, it’s you know supposed to have some sort of like some sort of connection and yeah…I would change my approach a little bit. And I think also … I could do it a bit differently and maybe more effectively next year.

Teacher 2 Yeah, and I think a part of it for me as well, I was new to Photo Story 3 and being a bit more familiar with the tool itself now I … probably will do things a little bit differently in the classroom.

One of the advantages of using PS3 is that it is a simple program which the students can pick up quickly. The teachers saw that the program had a lot of potential for other multimodal tasks. As one suggested:

> Some other multi modal sort of things…they always just put a PowerPoint and then they put an mp3 behind it and it’s just PowerPoint. Whereas this actually has more to it …like it’s half way between PowerPoint and Movie Maker… [which] is just time consuming… and this is easy to use.

One teacher said she would also use the ICT skills and the software program in History. Both ICTs and literacy are now embedded General Capabilities across the Australian Curriculum. It raises the issue of how we use ICTs in the curriculum. Doing English with ICTs gives us new tool to enhance our discipline-specific knowledge. One of the teachers argued that the use of ICTs is “embedded in the task” and that the central concern of English teachers returns to imaginative approaches to narrative. Teacher 5 suggested “…we’re not expecting these kids to be media experts… It’s just another way of creating text really. And so we are not actually assessing their ICT proficiency. We’re looking at increasing their ways of creating and telling stories. …. that’s what we’re about.”

Teacher 2 corroborated this and added that the benefits of the reading aloud the narrative element on the software made them think about ballads as performed literature: ‘I think what was important with mine was the way that they never before *said* their poems. That you know you can write it but it’s not

until you actually read it out loud… it becomes a poem… Yeah and for a lot of my kids, I reckon over half of them said, "My poem is crap I need to fix it".

Teacher 2 distinguished the digital ballad from slam poetry, which has become a popular way for students to engage with poetry in the spoken mode. She argued that the digital reading provided a less threatening context for speaking assessment tasks:

> It's also a safe read aloud rather than you know we're doing poetry slam… which for some students just didn't feel safe and they didn't want to perform. Whereas only one student questioned me on, "oh do I really have to read this poem?" And I said "oh you read it online"... "Oh that's alright then".

Teacher 1 also said that skills learnt in this task could also be applied to further literary work in later classes in the work program, which demand more advanced aesthetic investigations into texts. As the Head of English said: "…in Year 9 …we're going to do Shakespeare. So yeah certainly a digital element of creating that is something that needs to be done". It was an aim of the project that the teachers and their students would build their repertoires of digital skills, and that these would be sustainable beyond the PD program. One thing they agreed upon was that digitising the poems had made them more 'outstanding'. Because the final products would be screened and shared, effort was made to polish the multimodal performance. Due to a lack of adequate infrastructure, the files the students produced had to all be saved from individual USBs to the teachers' computers for screening. The final discussion was the promise that the school was moving to secure cloud technology in the near future, and this is anticipated to resolve some of the submission, storage and retrieval problems encountered during the project.

A final collegial comment also points to sustainability beyond the PD program and shows a community of reflective and shared practice is operating in a healthy way in the school. Some teachers become ICT leaders who can pass on their knowledge and share their experience with others:

> [W]hat I want to do is to tap into Teachers 1, 2 and 4 [who had just taught this unit] for the reflections on this now. … I imagine the Year 7 teachers throughout the year, not just for this unit. We will probably have extra meetings where, you know, we're talking to each other… because there is five new staff to the school.

The lessons learnt in this project are many, but chiefly focus on results from confident professional teachers using technology. It is important for school infrastructure to support the effective use of ICT, so that effective access to technology doesn't create a digital divide. If policies and infrastructure, such as reliable hardware and online learning management systems, do not support the transition to complete classroom computer use, teachers have to find workarounds to accommodate these technological problems in the classroom. The problem of a lack of effective monitoring and networking also contributes to working with computers, resulting in losing time rather than saving it. Effective use of ICTs has to be taught and the ostensible education revolution has not occurred until the infrastructure catches up and we find a way to integrate technology responsibly and effectively in schools. We have some way to catch up when considering infrastructure in schools to support ICT use. It is all very well to integrate ICTs to produce new kinds of multimodal texts across the curriculum, but this is no less fraught with difficulty than the idea that literacy is an important GC in every learning area. This small case-study shows us that putting teachers first is important. When English teachers have the opportunity and support to become confident users of technology themselves, the results for their students can be exciting.

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